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ENERGY = MC^2 ...THE MICHIGAN COMPUTER CONSORTIUM MAGAZINE

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FEBUARY 1987



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ABOUT ENERGY

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Subscriptions to **ENERGY** are provided as a benefit of membership in one of the clubs constituting the Consortium. For information about joining one of the clubs, refer to the club data section of this issue or write to the club in care of the Consortium at the address above. Individual copies of **ENERGY** can also be purchased at many greater Lansing area locations.

Please check the mailing label on each issue of **ENERGY** that you receive. Notify your club officers if your address changes. The date on the **ENERGY** mailing label is a reminder of your current membership term.

ABOUT THE MICHIGAN COMPUTER CONSORTIUM

The Michigan Computer Consortium was formed in 1983 to sponsor joint activities involving member clubs. Current members of MC² are:

AppleLUG	Apple Lansing Users Group
CCUG	Color Computer Users Group
CHAOS	Capitol Hill Atari Owners Society
M ³ G	Mid-Michigan Microcomputer Group
UPCO	Users Personal Computer Organization

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ADVERTISING

Your advertisement in **ENERGY** will reach over 500 active computer users in the greater Lansing area. Four sizes of ads are available, with discounts provided for multi-issue contracts. Camera-ready ad copy is generally needed by the 15th of the month preceding publication. Limited graphics artwork is available at an extra charge. For more information, contact the Advertising Manager listed above.

ARTICLE SUBMISSIONS

Members are strongly encouraged to submit articles. Contact your club's Editorial Board representative. We generally use compressed mode printer copy with 3.5 inch columns and 8 lines per inch. Deadline for articles is the 15th of the month preceding publication.

JANUARY 1987
 SU MO TU WE TH FR SA
 1 2 3
 4 5 6 7 8 9 10
 11 12 13 14 15 16 17
 18 19 20 21 22 23 24
 25 26 27 28 29 30 31

CONSORTIUM CALENDAR

FEBRUARY 1987

MARCH 1987
 SU MO TU WE TH FR SA
 1 2 3 4 5 6 7
 8 9 10 11 12 13 14
 15 16 17 18 19 20 21
 22 23 24 25 26 27 28
 29 30 31

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1: LAMALUG	2: M3G EXEC	3: LACC ACM	4:	5: CMARC	6: CCUG
8:	9:	10: TI USERS GROUP	11:	12:	13: FRIDAY THE 13th	14: Valentine's Day
15: AMIG ENERGY meeting Presidents Day	16: M3G	17:	18:	19:	20: CHAOS APPLE LUG	21:
22:	23: UPCO (IBM PC)	24:	25: CP/M SIG	26:	27:	28:

AREA COMPUTER SOCIETIES AND USER GROUPS

ACM (Association for Computing Machinery)

Meets 1st Wednesday, for dinner and meeting. Contact Lew Crippen 377-6636 (days) 371-3179 (evenings); Mary Dike or Walt Davis 377-6636 (days)

AMIG (Amiga Mutual Interest Group)

Meets Third Monday, 7:30 PM; 255 Physics-Astronomy Building, MSU. Contact Ray Ettinger, 646-6503.

ASM (Association for Systems Management)

Meets 2nd Tuesday, for dinner and meeting, at the Harley House. Contact Richard Olson CSP, 323-7000 ext. 401 (days).

Apple L.U.G. (Lansing Users Group) (MC2)

Meets 3rd Saturday, 9:30 AM; 132 South Kedzie Hall, MSU, East Lansing. Contact PO Box 27144, Lansing, MI 48909; Gary G. Martin 394-0115 after 6 PM.

CAPKUG (Capitol Area Kaypro Users Group)

Meets monthly. Contact C. Stewart, 5731 Haverhill, Lansing, MI 48911; 882-7821.

CCUG (Greater Lansing Color Computer Users Group) (MC2)

Meets First Saturday, 1:00 PM; East Lansing Public Library, 950 Abbott, E.L. Contact PO Box 14114, Lansing, MI 48901; Dale Knepper (president) 626-6917.

CHAOS (Capitol Hill Atari Owners Society) (MC2)

Meets 3rd Saturday 10:00 AM; 118 Physics-Astronomy Bldg., MSU, East Lansing. Contact PO Box 16132, Lansing, MI 48901; Leo Seil (president) 393-7792.

CHAOS STING (ST Interest Group)

Meets 2nd Saturday, 10 AM; 118 Physics-Astronomy Bldg.

CMARC (Central Michigan Amateur Radio Club)

Meets 1st Friday, 8:00 PM; American Red Cross Bldg., 1800 E. Grand River, Lansing. Contact PO Box 10073, Lansing, MI 48901

Comp Klub of Lansing (TI Users Group)

Meets 2nd Tuesday, 7:00 PM; Computer Consignments, 5501 S. Cedar, Lansing. Contact John Hayes 882-7860.

The Commodore Club (of St. Johns)

Meets Every Tuesday night, 7-10 PM. Contact David Smalldon 224-4678, evenings.

DECUS GLLUG (DEC Users Greater Lansing Local Users Group)

Meets 3rd Wednesday evening of Sep., Nov., Jan., Mar., and May. Contact Claude Watson (secretary) 483-1111 (days).

DRUG (DEC Rainbow Users Group)

Contact Jeffrey Weihl 353-3717 (days) 349-6967 (evenings).

LACC (Lansing Area Commodore Club)

Meets First Wednesday, 7:00 PM; All Saints Episcopal Church, 800 Abbott, E.L. Contact PO Box 1065, East Lansing, MI 48823; Mike Boyce (president) 337-0454.

LAMALUG (Lansing Area Mac and Lisa User Group)

Meets monthly on different day in first week, 7:00 PM, at Computer Consignments, 5501 S. Cedar, Lansing. Contact Dick McCarrick at Computer Consignments, 394-4408; or Charles Winters 787-5731.

M3G (Mid-Michigan Microcomputer Group) (MC2)

Meets Third Tuesday, 7:00 PM; Foster Community Center, 200 N. Foster, Lansing. Contact PO Box 1302, East Lansing, MI 48823; Warren Wolfe (president) 337-7672. Executive Meetings First Tuesday, 7:30 PM; Beggar's Banquet, 218 Abbott, East Lansing.

M3G CMTUG (Central Mich. TRS-80 Users Group) SIG

Contact Lee Hodges 669-3258

M3G CP/M SIG

Meets Last Thursday, 7:30 PM; Foster Community Center, 200 N. Foster, Lansing. Contact Tim Childs 321-4072.

M3G Heath/Zenith SIG

Contact Tom Trana, 351-8655.

M3G Osborne SIG

Contact Larry Tirone 484-3921.

MSU MUG (MSU & Capitol Area Macintosh Users Group)

Meets Monthly during MSU school year. Contact John Sykes 332-6720.

U.P.C.O. (Users' Personal Computer Organization -- IBM PC group) (MC2)

Meets 4th Tuesday, 7:30 PM; 116 Ag. Engineering Bldg., MSU. FEB MEETING only is in 221 Natural Resources Bldg., MSU. Contact Marv Wardell (president) 349-5750.

Clubs designated (MC2) are members of the Michigan Computer Consortium.

This listing is as accurate as the information we receive. To list an event or update information, contact Joe Werner at (517) 337-7415.

Apple LUG	Mailing address: APPLE L.U.G. P. O. Box 27144 Lansing, MI 48909-7144	WHO: APPLE II and compatible owners/users in mid-Michigan.
		WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program on some topic.
	Contact person: Gary Martin	WHEN: Meetings are 3rd Saturday of the month at 9:30 a.m.
	phone: 517-394-0115 (after 6:00 p.m.)	WHERE: Room 102, South Kedzie Hall on the MSU campus. The NW corner of Farm Lane and Auditorium roads.
		EXTRA: Public-domain/ShareWare library, ENERGY newsletter, tutorials, and special interest groups (SIG's).
		HOW MUCH: Dues are \$12.00 a calendar year or \$1.00/mo prorated.

CCUG Mailing address: CCUG
 P. O. Box 14114
 Lansing, MI 48901

Contact person: Dale Knepper

phone: 517-626-6917

WHO: An organization devoted to Color computer and MC6809.

WHAT: Monthly meetings, consisting of announcements,
 questions and answers, and a program on some topic.

WHEN: Meetings are 1st Saturday of the month at 1:00 p.m.

WHERE: East Lansing Public Library
 950 Abbott, East Lansing, MI

EXTRA: Public-domain library, ENERGY newsletter.

HOW MUCH: Dues are \$12.00 a calendar year or \$6.00 under age 18.

M3G	Mailing address: M3G P. O. Box 1032 Lansing, MI 48823	WHO: Open to general computer interests of all types.
		WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program on some topic.
	Contact person: Warren Wolfe	WHEN: Meetings are 3rd Tuesday of the month at 7:00 p.m.
	phone: 517-337-7672	WHERE: Foster Community Center 200 North Foster, Lansing, MI
		EXTRA: Public-domain library, ENERGY newsletter, and special interest groups (SIG's).
		HOW MUCH: Dues are \$12.00 a calendar year.

UPCO	Mailing address: Skip Osterhus 219 Schooner Lansing, MI 48917	WHO: IBM and compatibles owners/users in mid-Michigan.
	Contact person: Skip Osterhus	WHAT: Monthly meetings, consisting of announcements, questions and answers, and a program on some topic.
	phone: 517-321-3425	WHEN: Meetings are 4th Tuesday of the month at 7:30 p.m.
		WHERE: Room 116, Ag Engineering building on the MSU campus located on the SE corner of Shaw and Farm Lane.
		EXTRA: Public-domain/ShareWare library, ENERGY and EXCHANGE newsletters, club bulleting board.
		HOW MUCH: Dues are \$5.00 per person per 12 months.

THE USER
by Joe Werner

"The deadline was yesterday. When will we get your article?"

I was greeted with those words two days ago. And so, with the sound of my editor tapping her toe impatiently in the background, I put these words down. But at least I am in good company -- even professional writers like Jerry Pournelle are often stretching their deadlines. And he gets paid for it! (Of course, so does his editor!)

The evening of that telephone call, I had been at a meeting of the local chapter of the Association for System Management, a professional society of some interest to computer types. There are several such groups in the area, and I think they get all too little publicity. So here's a description of a few.

The Association for Computing Machinery (ACM) is one of the oldest national computer-related groups, formed in 1947. The Mid-Michigan Chapter was re-activated about three years ago, after a lapse of many years. ACM tends to appeal to computer scientists, but the meetings and the membership are open to anyone. The local chapter meets on the first Wednesday of each month through June at the Mother Lode restaurant in East Lansing. A social hour and dinner are followed by a speaker. The next meeting of the Mid-Michigan Chapter of ACM will be February 4, 1987. The speaker is currently scheduled to be Jim Minnick of Prab Robots. Upcoming meetings are scheduled to include topics of "Systems Analysis: Computer Aided Project Management", and "Machine Intelligence".

The Association for System Management (ASM) is also an old, established national association with a local chapter. ASM is oriented toward Systems professionals. (Systems here refers to system analysis, not system programming. Such diverse areas as form design, local area networks, and computer output to microfilm are topics of interest.) The Mid-Michigan Chapter meets on the second Tuesday of each month through May at the Harley House Hotel. The next meetings are scheduled to be February 10, "The Practical Side of Relational Data Bases", and March 10, a tour of the LCC CADAM (Computer-Aided Design And Manufacture) facilities.

(The January issue of the ASM chapter newsletter carried a brief reminder from Chapter President Rich Olsen: "... And now the third Millennium is only 13 years away.")

If you are at all interested in computers made by Digital Equipment Corporation (DEC), you may be interested in DECUS, the DEC Users Society. DECUS is an international association with a Local User Group in Lansing. The next meeting of DECUS is scheduled for 7:00 pm February 18th, at the A.H. Case Center for Computer Aided Engineering and Manufacturing (246 Engineering Bldg., M.S.U.). At press time, DECUS hopes to have a videotape speech by Rear Admiral Grace Murray Hopper, USN Ret. and a recent hire of DEC, from the DECUS national videotape service. Future meetings are planned for March 18th, discussing Ethernet Clusters, and May 20, a report from the national DECUS gathering in Nashville the last week in April.

(Incidentally, if you haven't seen or heard Grace Murray Hopper speak, this would be a good opportunity. She recently retired from the Navy at the age of 79, the oldest person on active duty with the US Military. She was promptly hired by DEC to serve as an author, educational liaison and speaker on government issues. She is a pioneer of the computer industry, often credited with being the driving force behind the development of the COBOL programming language. She is also a dynamic speaker. I hope the DECUS LUG gets that tape! WARNING - at press time, the tape reservation has not been confirmed. Don't blame your trusty author if another gets substituted. We do have deadlines, after all.)

All of these groups meet on an "academic year" schedule, cancelling meetings during the summer. We'll try to have announcements about upcoming meetings in Energy whenever possible. In all cases, though, a contact person is listed on the Calendar page of each Energy; the people listed should be able to give you more information.

So, as if you didn't have enough meetings to attend, here are a few more. Hope to see you at some. They might be very interesting. They certainly were to me. And besides, they helped me get my editor off my back.

Marvin L. Wardell
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- * Novell Network Installation

An Overview of Project Planning by Ginny Werner

Let's suppose you are a manager. Your boss has just handed you an important project and given you a deadline. You now have to figure out if you have the time, the money, the people and the equipment to get the job done. In other words you have to do project planning.

Every project is made up of tasks. A task is a unit of work that you will assign to one person to do. When you are writing a program these tasks include requirements, design, coding, and testing. Now you might say that it takes more than one person to do things like requirements on a large project. This is true, so each person who will be helping gets assigned the task of requirements. A rule of thumb that many planners use is that if a task takes more than 80 hours to do, it should be broken up into at least two tasks.

Each task has certain attributes. These include a person assigned to the task, a start date, a duration (how much time it will take), and the equipment necessary. Once you have established these you can calculate the cost of doing the task.

Tasks are also related to each other. Some tasks can not start until another task has finished. For example it is unwise to start coding before you have finished the design. Some tasks can be done concurrently. You and someone else can be working on two different pieces of code at the same time. Some tasks need to be partway done before another task can begin. For example a task may need certain test files, but not others. Therefore that task could be started before all the test files were set up.

Once you have established all the necessary tasks and determined the relationships among them, you will need to make sure you haven't over-committed any of your people or equipment. And you will be in a better position to determine if you will meet your deadline.

You may want to keep a chart of your project so you can visually see how it looks. One type of chart you can draw is a Gantt chart.

A Gantt chart lists the tasks down the side of the page and a time line across the top of the page. Bars are then used to show the duration of a task.

Suppose your project that has four tasks. Task 1 has to be done before you can do any other task and it will take 4 days. Task 2 can be done after Task 1 is

finished and will take 5 days. Task 3 can be done after Task 1 is done and will take 6 days. Task 4 can be started two days after Task 2 is started and will take 10 hours. The Gantt chart for this project might look something like this:

		Day									
Task		1	2	3	4	5	6	7	8	9	10
Task 1	:	#####									
Task 2	:			#####>>							
Task 3	:			#####							
Task 4	:					#####>>>>					

Each day is represented by two ampersands (&&). Notice that Task 2 and Task 4 also have arrows (>>). These indicate that these tasks could slip (either start later or take longer) and still not effect the project due date. The tasks without these arrows are on the "critical path" since any slip in their schedules will effect the project due date.

Notice that the name of the person doing the task is not listed on the chart. Notice also that time is represented in half day increments. A project taking 2 hours and one taking half a day would look the same on this chart. (The resolution of a chart depends on the total project duration and the size of the sheet of paper.)

Another way of displaying tasks is with a PERT chart. A PERT chart shows each task as a box listing the task name, who is doing the task, its duration, the start date, and the expected finish date. The PERT chart for the project above might look like this:

		Task 2	
		Sue	10h
		day 5	day 9
Task 1	Joe	4d	
Task 4	Sue	4d	
Task 3	Joan	4d	
Task 2	Sue	10h	

Here the "critical path" is shown by using asterisks (**) and the non-critical path by dashes (--). Although this tells you who is doing the work and exactly how long the work will take, it doesn't represent the time graphically. However, it does show you that you have over-committed Sue. You will either have to give one of those tasks to someone else, or you will have to shift the start date of Task 4, thus extending the finish date of the project.

Once you have set up the initial plan you are not done with project planning. The parameters for a project are always changing.

The most frequent change to a project is how long a particular task will take. Most of us are under-estimators. I don't know how many times I've done a "quick fix" only to have it take four or five times longer than I estimated. Or sometimes the equipment is not performing as expected.

A second change is in the time a person may have to spend on a project. People have been known to get sick, and they really don't do it just to inconvenience you. If someone who is doing a task is called away for an extended period of time it may be necessary to have someone else take over that task.

Another change is a change in priorities. Someone may be called away to work on a crisis. An example would be that payroll isn't working and everyone expects to get paid today.

A fourth change that occurs is a change in the design. Sometimes you find during the middle of a project that the design is just not going to work. You may have missed something in the requirements stage and now you need to back up and re-evaluate things.

Each of these changes will affect the time it takes to do a project and they may affect the cost.



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Steven Gann
General Manager

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Aurelius At Jolly Rd.

A lot of M3G memberships expire at the end of each year. Since we carry expired memberships for two months, you have been receiving Energy beyond your expiration date. But, this may be the last Energy you receive!

Please take the time to check your mailing label. If you find "M3G" on the first line, the next four digits are your expiration date, in the form YYMM, (Y=Year, M=Month). If it's time to renew your dues, you may also find a reminder on the second line.

To renew your membership in M3G, bring your dues to any M3G meeting or send them to M3G, PO Box 1302, East Lansing, Michigan 48823.



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APPLE LUG NEWS

Apple LUG Officers

<i>President:</i> Arie Koelwyn	1382 Red Leaf Lane, East Lansing	332-6988
<i>Vice-President:</i> Jim DeNike	3882 Okemos Rd., Okemos	349-3714
<i>Secretary:</i> Gary G. Martin	822 W. Willoughby Rd., Lansing	394-0115
<i>Treasurer:</i> Dick Ferris	502 W. Columbia St., Mason	676-9507

PROGRAM THIS MONTH

At press time we did not have a program finalized for this month. We are still trying to bring Hartley Software in for a demonstration on educational software. We are also looking for ideas from you on types of programs you would like to see and know more about. Please contact one of the Officers or Board Members with your suggestions. As usual we will be meeting in Room 102 at S. Kedzie Hall on the M.S.U. Campus. We will be meeting February 21st at 9:30 a.m. If you missed last month's meeting you missed a good video tape from the Users Group Convention last July.

FREE DISKS

Computer Consignments has made an offer to the members of Apple L.U.G. Each month by bringing in your membership card you will receive a free disk. For the month of February only you can take your issue of *Energy* in to receive your free disk. Dick McCarrick or Jack McGinnis are the guys to see when you're there. We would like to thank them in advance for their great offer to us.

REPRINTED FROM POKE APPLE MAR 86, APPLE
SIDERS USERS GROUP

ODE TO CLUBS

MEMBERSHIP CARDS

One of the recent discussions at the Board meetings has been the creation of membership cards for Apple L.U.G. Well we have finally figured it out and have come up with a design that will be a great starter and asset to the club. These should be finished and out in the mail to everyone sometime in February.

Some of our plans for the near future is to get an arrangement set up with the local Dealers in the area so that by showing your cards you can receive a discount on purchases made at their stores. As this comes about we will announce it at our monthly meetings and in our Newsletter. See the next article for the first offer available with your new cards.

*Some members keep their Clubs strong,
While others join and just belong.
Some dig right in, some serve with pride,
Some go along just for the ride.
Some volunteer to do their share,
While some lay back and just don't care.
On meeting nights some always show,
While others never go.
Some always pay their dues ahead,
Some get behind for months instead.
Some do their best, some build, some make,
Some never give but always take.
Some drag, some pull,
Some don't, some do. . .*

CONSIDER

Which one of these are you?

WAPACROSTIC

by Professor Apple

(Reprinted from WAP 9-86)

	1	J	2	U	3	J		4	S	5	J	6	R	7	G	8	R	9	H	10	N	11	H		12	U	13	J	14	Q		15	A													
16	R	17	O				18	M	19	U	20	R				21	F	22	P	23	M	24	R	25	C	26	F	27	F	28	E	29	H		30	H	31	N	32	E	33	O				
34	P	35	K	36	I	37	J				38	L	39	N	40	B			41	M	42	K	43	F	44	D	45	N			46	I	47	K	48	L	49	T			50	K	51	T		
52	C	53	B				54	L	55	T	56	Q	57	J			58	S	59	G	60	D			61	A	62	L	63	E			64	S	65	D	66	D			67	I	68	A		
69	A	70	I				71	H	72	M	73	G	74	P	75	N	76	D	77	A	78	K	79	Q	80	T	81	A			82	O			83	B	84	P	85	E	86	P	87	E		
88	S			89	L	90	D	91	T	92	K	93	B				94	P	95	Q	96	G	97	T			98	A	99	B	100	Q			101	O	102	O	103	O	104	L				
105	C	106	G				107	D	108	N	109	Q	110	F	111	F				112	R	113	N			114	P	115	S	116	L	117	K	118	R	119	T	120	H	121	M	122	F			
	123	L	124	I	125	O				126	C	127	C	128	O	129	I	130	B					131	S	132	F	133	L			134	E	135	I	136	T	137	M	138	C	139	U			

Definitions

Words

A. Agents	98	77	68	81	15	69	61
B. Hurried	53	99	130	83	40	93	
C. Cruel	52	127	126	105	138	25	
D. Gladdened	107	65	76	66	90	44	60
E. Messengers	32	87	85	134	63	28	
F. Comes to the end	26	132	43	27	21	122	110 111
G. Awkward	96	59	73	7	106		
H. Racial	11	30	29	9	120	71	
I. Pertinent facts (sl)	36	124	67	70	46	129	135
J. Moved rapidly	37	13	3	1	5	57	
K. Delight	35	47	92	117	78	42	50

Definitions

Words

L. Upper right on map	104	116	123	38	54	48	62 133 89
M. Automaton	72	23	41	137	18	121	
N. Overall city	108	45	39	75	113	10	31
O. Colored	125	128	33	101	102	82	17 103
P. Guards	22	84	94	74	34	86	114
Q. Breathing disorder	79	14	100	95	109	56	
R. Baked	24	8	16	6	112	20	118
S. Obstruct	88	131	115	58	4	64	
T. Openings	51	49	91	119	136	80	55 97
U. Long	12	2	139	19			

ANSWERS TO LAST MONTH'S WAP ACROSTIC

"Behind every product is a great product manager. This much maligned and misunderstood breed is a twentieth century phenomenon... This schmuck wouldn't have even had a job 'teen years ago."

Author: (Dan) Cochran

Work: (Of) Products and Processes

Source: Outside Apple - April Fools Edition

- A. Change
- B. Olympic
- C. Chamfer
- D. Hob
- E. Rejoin
- F. Adding
- G. Nettle

Words

- J. Daken
- K. Debt
- L. Uruguay
- M. Coin
- N. Thief
- O. Stand
- P. Asthma

- S. Put
- T. Renew
- U. Omaha
- V. Churn
- W. Endows
- X. Shoving
- Y. Shimme

New Product: Microworks Digisector 69A

Producer: The Microworks

Description: Upgraded version of DS69 video digitizer for the color computer.

Author of this announcement: Marty Goodman

I am the data base manager of the Delphi CoCo SIG, and I am also a friend of and very occasional informal consultant to Bob Lentz of the Microworks.

I've used two sorts of CoCo Video Digitizers over the last two years, and was one of the very first CoCo users ever to use a video digitizer, as I supplied the design for the one currently being sold by Computize.

I happened to see a prototype of the DS69A while visiting the Microworks during my return from a trip to Baja. The unit externally physically resembles the old DS69, though its circuit is nearly totally different. The DS69 produced superlative images, but had the drawback that it could only digitize 2 frames per second compared to the Computize digitizer that would digitize 5 frames per second. The new DS69A, in its CoCo PMODE 4, 256 by 192 graphics mode will digitize EIGHT frames per second... fully four times faster than the old DS69. This makes it the fastest video digitizer on the market for the CoCo, in terms of number of frames displayed per second. It renders 5 gray levels with the same superb accuracy as the old DS69. The faster rate of digitizing allows more flexibility in focusing and adjusting the digitizer, particularly when dealing with moving subjects.

The new DS69A will also be accompanied by improved software, that will allow taking a 256 by 256 pixel 16 gray level scan (though such a scan will be quite slow... taking about 15 seconds or more). This extremely hi res scan will not be displayable on the CoCo in its full detail, of course, but will be able to be dumped to any of a large variety of dot matrix printers.

One striking addition to the software is that the new unit will now be able to read from and write to a GRAPHICOM picture disk, as one of its disk I/O options. At the time of this writing the product may be ready for release to the public. It was not quite ready at the time of the appearance of the ad for it in the March, 1986 Rainbow.

My impression based on a brief bit of time spent with a prototype was that this is the single best all around CoCo Video Digitizer. I was VERY impressed with it.

(Downloaded from Delphi)

THE CONDEMNED

=====

When the earth was created, the powers above
Gave each man a job to work at and love.
He made Doctors and lawyers and plumbers and then
He made carpenters, singers, and confidence men.
And when each had a job to work as he should,
He looked them all over and saw it was good.

He then sat down to rest for a day,
When a horrible groan chanced to come his way.
The Lord then looked down and his eyes opened wide,
For a motley collection of bums stood outside.
"Oh what can they want?" the Creator asked them,
"Help us," they cried out, "A job for us men".
"We have no profession," they cried in dismay,
"And even the jails have turned us away".
Said the Lord, "I've seen many things without worth,
But here I find gathered the scum of the earth!"

The Lord was perplexed, then he was mad,
For all the jobs, there was none to be had.
Then he spoke aloud in a deep angry tone,
"Forever and ever ye mongrels shall roam,
Ye shall freeze in the summer and sweat when it's cold,
Ye shall work on equipment thats dirty and old,
Ye shall crawl under raised floors, and there cables lay,
Ye shall be called out at midnight and work through the day,
Ye shall work on all holidays, and not make your worth,
Ye shall be blamed for all downtime that occurs on the earth,
Ye shall watch all the glory go to software and sales,
Ye shall be blamed by them both if the system then fails.
Ye shall be paid nothing out of sorrow and tears,
Ye shall be forever cursed, and called FIELD ENGINEERS!"

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Computers in General
By Bryan Decker

Computer	Word size	Instructions Per Second	Maximum Main-Storage Capacity	Price Range
Mainframe Super	64	800 million	200 megabytes	10-20 million
Large	32	5-15 million	32 megabytes	2-6 million
Smaller	32	2-5 million	12 megabytes	500,000-million
Mini	16/32	1-3 million	4 megabytes	15,000-400,000
Micro	8/16	100,000-1 million	512,000 bytes	100-15,000

Super Computers are used primarily in scientific applications requiring extensive calculations, such as weather forecasting, nuclear research, and oil exploration.

Large Computers are used primarily in processing large volumes of data. Such large-volume may be required by a bank that processes 10 to 20 million checks, 5000 to 10000 loan applications, and several hundred thousand loan payments each day.

Smaller Computer systems are likely to support multiprogramming and virtual storage. A number of jobs can be run at one time (windows). Typical components of a small business computer are console display, keyboard, central processing unit, disk drive, and printer.

Mini Computers can be installed in a manufacturing plant to control a continuous production process, monitor it, and make any changes necessary to insure a uniform product. Typical components of a transaction oriented minicomputer: central processing unit and console display-keyboard, floppy disk drives, hard disk drive, and printer.

Micro Computers are also called Home Computers. The main use is personal; such as games, education, small business, etc. Some of the programming languages used are: Basic, Extended Basic, Logo, Machine Language, Pascal, and many more. Home Computer sales are greater than any other group of computers.

pc/ms-dos...

"ABORT, RETRY, IGNORE" REQUIRES CAUTION

by Robert Sanchez

So you have your favorite word processor or compiler in Drive A and your data diskette in Drive B. Since you are a very careful computer user, you know that as soon as you have completed a letter, document, program, or whatever, the next step is to back up the completed file on a backup disk.

You type COPY B:MYFILE.EXT A: and press ENTER. Oops! You forgot to put the backup disk in drive A, and thus tried to back up your file on the write-protected disk in drive A. So you read the friendly DOS error message:

Write protect error writing A:
Abort, Retry, Ignore?

Your normal response might be not to run to the DOS manual, but to try to reason out the proper steps on your own. After all, computers are meant to be "user friendly".

It would seem logical to remove the write-protected disk, insert the intended backup disk, and then respond with: Retry (or Ignore). WRONG!

One of the first things DOS does when you issue the COPY command is to read and store the directory of the target diskette. In fact, DOS does this before checking to see if the target diskette is write protected. Thus, if you remove the write-protected diskette and insert the intended diskette, followed by a response to RETRY or IGNORE, the COPY command continues, and the directory from the removed diskette is put on the newly inserted diskette. That leaves all the files previously stored on that diskette inaccessible (unless you use the DOS 2.x RECOVER command or the Norton Utilities FILEFIX command, along with lots of time and patience.)

When you go back to the DOS manual to find out what went wrong, you may find a warning that reads: "If any of these error messages appear for a diskette drive, DO NOT change diskettes." Having learned what not to do -- and its consequences -- what should you do next time?

First, do not change diskettes. Second, respond to the error message with ABORT. Third, continue with the correct procedure, which would have avoided all the problems in the first place: change diskettes, then reissue the command.

[Reprinted from the Sept. 1987 Newsletter of CSRA Computer Society, Inc., Augusta, GA, who further reprinted from Winnipeg IBM PC UG -- JWW]

The following definitions are provided to all potential new computer systems buyers to help you understand some of the complex jargon of this industry:

IBM COMPATIBLE	Paint matches IBM PC
FIELD TESTED	Manufacturer lacks test equipment
RUGGED	Too heavy to move
LIGHTWEIGHT	Lighter than RUGGED
FACTORY DIRECT	Manufacturer is in fight with distributor
ADVANCED DESIGN	Ad copy writer doesn't understand how it works
RELIABLE	Prototype worked at least one week between repairs
NEW	Different color from previous model
FULL SUPPORT	Broken units available as spare parts
OBSOLETE	Dependable, reliable, inexpensive, and readily available

[Reprinted from the Sept. 1987 Newsletter of CSRA Computer Society, Inc., Augusta, GA, who further reprinted it from the BECS Newsletter. -- JWW]

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A DAWG's Guess
by
DATA DAWG



... boy are BRUNO and the Heaters hot! Oh, excuse me I didn't realize that it was time for ole DD to be pawing out the monthly gossip column! Back to reality in the local computerdom of mid-Michigan.

Thanks for the feedback on PDOS. Look for more revealing details in the future (as opposed to the past). This column will focus on new 'clonears', local cyber views, and last months' promised 1987 missives.

I was just saying to the KATT that what the computer world needs is another IBM PC 'clonear' and lo and behold I got my wish (I think next time I'll ask for something a little more substantial if that's all there is to it!). ATARI and COMMODORE both announced an IBM compatible. The details are of course in those other magazines you loyal ENERGY folks regularly read so I won't bore you with too many details. They are both compatible and priced under \$1000 so what more do you need to know? Ask the good club members in CHAOS and LACC for the finer details and for all of you that purchase one of these machines, then just maybe I'll get a chance to eavesdrop on your conversation at the CHAOS meeting, LACC meeting, or maybe the UPCO meeting.

Why are so many people waiting on the APPLE II GS? Does anybody really know the reasons for the delay? Drop a note to the currently overworked and definitely underpaid editor of this publication and she can secretly pass it on. Be assured that your identity will be protected. Why you say? Because I hear the Mr. Jobs has something to do with it, or was that another computer? Does it MERIT looking into? PARIS the thought!

Rumor or fact? Is it possible that the good folks of LAMALUG are the last major holdout to joining the Michigan Computer Consortium. It could be a fact if the rumor that the LACC club has voted to join. If that's true then congrats are in order to the newest members of the computer pyramid group. The Dawg and his fleas salute you! Say speaking of fleas, has anybody run across a program that will assist me in removing the little parasites from my hide? I'm currently using TURBO PROLOG to try and EXPERTLY eradicate the non-paying tenants but to no avail so far. I like this language especially on my superfast '386 CPU from BIG BLUE! Ooooooops forget that your ever read it here, but Data Dawg has quietly switched from the COMPAQ to the competitions. Since I have revealed so much, I predict now is the time to bark out the guesses.

Guess 1 ... ENERGY might be on time by the time you read this. What do you want on my budget? These guesses will build as we read on. Keep in mind that this is the February issue that you are reading and I'm sure by now you know all of the guesses by the supermarket predictors and all of the other sources of computer trivia.

Guess 2 ... LAMALUG will join the consortium by the end

of the year. If this proves incorrect then substitute 'LACC' for 'LAMALUG'. The Dawg likes to keep a reasonably high batting average in these matters.

Guess 3 ... IBM's entry will sanction desktop publishing and APPLE may actually deserve the current price of their stock (\$50/share) since profits will now be based on increased sales of their machines and not on declining costs as has been the case for the past 20+ months.

Guess 4 ... 80 percent of the 'clonear' makers will fold their tents (are you listening KAYPRO ... not true that this is a machine sold by Mary Kay) in 1987. Easy guess here, just look at how many early 'clonears' makers eventually went out of business ... remember the Columbia, Chameleon (went out because nobody could spell it ... that rule doesn't work for what's his moniker in Libya however).

Guess 5 ... APPLE is right on the mark with the 'connectivity' concept but may not implement it correctly. However DD would like to give them credit for a 1987 scenario of everybody trying to connect to everybody else's computer so that we may all share horror stories of how long this took to accomplish, as well as important data (golf scores, football betting pool, etc). The Dawg can't help but wonder if connectivity would have come sooner (1986?) if everybody all ran on the same computer or at least the same operating system ... probably not since that doesn't seem to help the souls in the 'EVIL EMPIRE'.

Guess 6 ... Nationally marketed software products will be coming out the mid-Michigan area in 1987. Another easy guess here ... law of averages on my side with one. Sure I know that some of the ENERGY readers will say "So what? There have already been some nationally marketed software to come from this area! What's the big deal?", well the big deal is the quality and diverseness of this next generation software that will be sold in 1987. No more games in this lot, but instead serious productivity tools and applications! Check this one out for yourself as you view upcoming ads in the magazines.

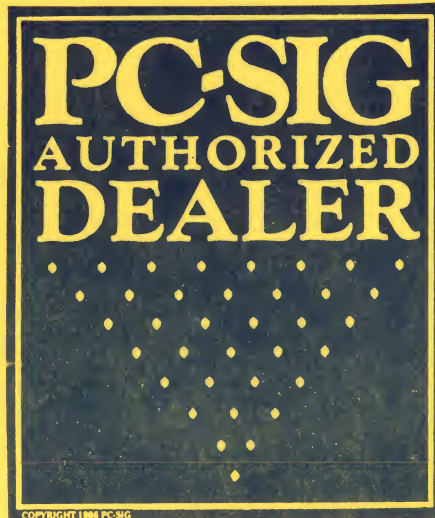
Guess 7 ... Data Dawg will get married! Remember these predictions are in ascending order of both importance and probability ... so draw your own conclusions on this one. But of course most all of you will be invited to the event, I just hope that ENERGY arrives in time so that you can find out where it's going to be (who said the pound?). Maybe you can ask Madonna on this one.

Guess 8 ... MAXIT - 87 will be very well attended thanks in part to the Dawg's prediction. You see this another easy self-fulfilling prediction and another easy one to make and verify of course. Just show up and count the people in attendance for yourself. See how easy that was?

Guess 9 ... IBM will do what everybody is saying, just not all of it at once. I hope you viewed the SUPER BOWL. Remember what the Dawg is pawing on!

Guess 10 ... Guess I ran out of room.

Howling yours - D.D.



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